

bae urban economics

June 25, 2017

Councilmember Kate Harrison
City of Berkeley
2180 Milvia Street
Berkeley, CA 94704

Dear Councilmember Harrison:

At your request, BAE Area Urban Economics, Inc. (“BAE”) has prepared a response to questions raised by Mr. David Trachtenberg, Principal, Trachtenberg Architects in an email communication dated June 13, 2017 regarding certain parking cost assumptions made by BAE in its 2015 Affordable Housing Nexus Study and by Strategic Economics in its 2016 Financial Feasibility Analysis. This response makes several refinements to the BAE study financial feasibility analysis but limits such refinements to assumptions that would reflect 2015 market conditions.

Background

BAE prepared a *Draft Affordable Housing Nexus Study*, dated March 25, 2015, that was presented to the Berkeley City Council on July 14, 2015 (“2015 BAE Study”). The 2015 BAE study included a financial feasibility analysis that indicated that a housing mitigation fee of \$34,000 per unit fee was feasible for multifamily rental units. The 2015 BAE Study was prepared as an update to an earlier study prepared by BAE in October 2010. This earlier study was the basis for the Council adopting a \$28,000 per unit affordable housing mitigation fee in October 2012.

In March 2016, Strategic Economics submitted a study, *Financial Feasibility Analysis: Affordable Housing Impact Fee Levels for New Market Rate Rental Units* (2016 Strategic Economics Study”). The 2016 Strategic Economics Study indicated that a maximum feasible affordable housing mitigation fee of \$44,000 was justified for multifamily rental units. On July 16, 2016, the Council raised the fee to \$34,000 per unit for multifamily rental units. The Council is now considering an increase of the fee for multifamily rental projects to \$37,000 per unit with a \$3,000 per unit discount to \$34,000 per unit if the fee is paid at time of building permit issuance instead of issuance of a Certificate of Occupancy.

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Trachtenberg Comments

In his email communication, Mr. Trachtenberg states that both 2015 BAE Study and 2016 Strategic Economics Study contained two errors: (i) the per podium parking space hard cost assumptions at \$20,000 per space were too low and should have been \$52,000 per space and (ii) soft costs for the project did not include soft costs for parking. Mr. Trachtenberg calculated that approximately \$4.2 million in development costs were omitted in the 2015 BAE Study and 2016 Strategic Economics Study.

BAE Response

Parking Costs and Parking Soft Costs. BAE reviewed both the 2015 BAE Study and 2016 Strategic Economics study. The 2016 Strategic Economics Study utilized the cost data and assumptions from the 2015 BAE Study. BAE Principal David Shiver contacted retired BAE founder and Principal Janet Smith-Heimer, who prepared the financial feasibility analysis for the 2015 BAE Study, to review the Trachtenberg comments. Ms. Smith-Heimer indicated that the per space parking hard costs reflect a single-level podium with at grade parking (no lifts) with retail facing the street, consistent with the study's prototypical project specifications.

In his commentary, Mr. Trachtenberg is not specific when quoting parking costs whether he is referring to parking costs for single-level at grade podium parking, partially underground podium parking, or two-level podium parking. The latter two podium parking construction approaches would have higher per space hard costs than the single-level at grade podium. Additionally, we do not know whether the cost figures provided by Mr. Trachtenberg are 2015 or 2017 construction costs figures. Construction costs have escalated during this period.

The costs cited by Mr. Trachtenberg for podium parking appear more consistent with 2015 costs for underground parking based upon BAE's pro forma work in that year for several projects in the inner Bay Area with underground parking for which construction cost data were furnished by the project developers (\$50,000 to \$69,000 per space). Projects with podium parking ranged from \$25,000 to \$31,000 per space. Regarding parking soft costs, BAE concurs with Mr. Trachtenberg that soft cost calculations should have been included parking hard costs.

To prepare a refined financial feasibility analysis, BAE has assumed a \$35,000 per space hard cost for parking and adjusted the formula for soft costs to include parking hard costs; this provides a conservative estimate of podium parking costs for the financial model. It should be noted that many rental residential projects in Berkeley are approved with less than the 1:1 parking ratio modeled in the 2015 BAE Study and reductions in parking requirements can add significant value to projects. As a further observation, no parking revenue was assumed in either the 2015 BAE Study or 2016 Strategic Economics Study; many rental residential

projects in 2015 charged for parking, so revenues for the prototypical project is likely understated.

Capitalization Rates. In our review of the 2015 BAE Study, we observed that the capitalization rate used to calculate a value of the prototypical mixed-use retail/rental residential project (5.5 percent) was significantly higher than average cap rates reported for the East Bay in 2015. The 2016 Strategic Economics Study provided data from Paragon Real Estate Group that indicated that capitalization rates for the Alameda County market were 5.1 percent in 2015 and from Marcus and Millichap's 2015 National Apartment Report that capitalization rates averaged 5.0 percent for Oakland and Contra Costa County.

For the purpose of refining the 2015 BAE Study, BAE obtained cap rate data from the CBRE North America Cap Rate Survey, Second Half 2015 ("2015 CBRE Survey"). No specific data for Berkeley are reported but data are available for Northern California: San Francisco and Northern California; Oakland. The 2015 cap rates for Class A, Infill multifamily properties range between 3.50 and 4.00 in San Francisco and between 4.00 and 4.5 in Oakland. Class A Infill multifamily refers to mid- to high-rise projects that are located in the dense parts of metropolitan areas that have high levels of unit finishes and above average rental rates. It is reasonable to expect the capitalization rates for newly constructed, stabilized rental residential projects in Berkeley would be lower than the averages reported for Oakland.

It should be noted that in its 2015 study evaluating rent premiums associated with residential projects in downtown Berkeley, AECOM utilized a capitalization rate of 3.5 in preparing its financial analysis. The lower the capitalization rate, the higher the project value¹.

The appropriate cap rate for Class A infill projects in Berkeley likely falls in between the ranges reported for San Francisco and Oakland since Berkeley is highly land constrained and has strong demand due to the presence of UC Berkeley. For the purpose of this update, however, a 4.5 cap rate is applied.

Condominium Sales Price Assumption. Although no changes are currently under consideration for the fees on for-sale units, BAE also refined the analysis from the 2015 BAE Study of the financial feasibility of fees on condominiums. The 2015 BAE Study utilized a sales price of \$620,000 based on the medium sales prices of re-sale condominiums in the period July 2013

¹ The capitalization rate is one metric used to value rental residential projects. The net income of a project is divided by the capitalization rate to yield project value. A project with a net income of \$100,000 would be worth \$2.0 million at a 5.0 percent cap rate and \$2.9 million applying a 3.5 percent cap rate.

through July 2014². By the end of June 2015, the medium sales price of condominiums in Berkeley had reached \$637,100, according to Zillow data.

To refine the BAE financial analysis to reflect 2015 market conditions (the middle of 2015), the condominium sales price in the model has been updated to \$700,800, following the same procedure as in the original 2015 BAE Study (i.e., adding 10 percent to the reported median).

Rental Residential Rates. The 2015 BAE Study assumed \$3,400 per unit monthly rental rates in its financial analysis. While this assumption is consistent with reported average rents in 2015 for newly constructed residential rental projects in West Berkeley, it should be noted that it is significantly below the range reported for Berkeley's downtown and campus areas (\$3,720 to \$3,980 monthly)³. No adjustment or refinement of the assumed rental rates is made for this update analysis, however.

Return on Cost Thresholds. In the 2015 BAE Study, a 10 to 12 percent return on cost metric is applied to determine economic feasibility. The return on cost is calculated by deducting total development costs from project value and dividing the difference (if positive, profit) into total development costs. The 2016 Strategic Economics Study calculated return on costs as stabilized net operating income divided into total development costs. The return on cost threshold set in the 2016 Strategic Economics Study was 6.5 to 7.5 percent. This range was calculated by adding 1.5 to 2.0 percentage points onto the prevailing cap rates, based on interviews with developers conducted by Strategic Economics.

However, the threshold set by Strategic Economics may have been unduly conservative by setting it significantly higher than what was prevalent in the market in 2015. The 2015 CBRE Survey, which is based upon surveys of investors and actual market transactions, indicates that the prevalent return on cost (NOI/total development costs) threshold tracked cap rates: between 3.5 and 4.0 percent for Northern California: San Francisco and between 4.0 and 4.5 percent for Northern California: Oakland.

For the purposes of this update, BAE determines feasibility by apply two metrics: (1) a minimum of 12 percent of profit to total construction costs; and (2) a minimum of 4.5 percent of stabilized NOI to total development costs.

² The 2015 BAE Study reports a medium condominium price of \$567,000 for existing condo resales and added 10 percent to that average to estimate sales prices for the financial analysis.

³ See Table 1, Current Rents for New Multifamily Housing Development in *Impact Fee Nexus & Economic Feasibility Study*, November 19, 2015, Hausrath Economics Group.

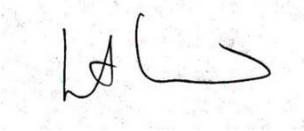
Updated Feasibility Analysis

To refine the 2015 BAE Study, BAE has updated the affordable housing mitigation fee for multifamily rental units to reflect the now existing \$34,000 per unit fee and the proposed \$37,000 per unit fee under consideration. Table 1 provides the results of making the refinements to the 2015 financial model as outlined in this report.

For both rental residential and for-sale residential the projects are financially feasible and meet both feasibility metrics. The rental residential project returns significantly exceed the 12 percent profit to total development cost metric and the 4.5 percent net operating income to total development cost metric, indicating that the prototypical project is financially feasible with and without the proposed new affordable housing mitigation fee.

If you have any questions about the analysis presented herein, please do not hesitate to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read 'D. Shiver', is placed over a light gray, textured rectangular background.

David Shiver
Principal

Table 1: Berkeley In-Lieu Fee Feasibility Analysis: 3 + 1 Prototype

Development Assuptions	Rental		Condo	
	Alt A1	Alt A2	Alt B1	Alt B2
	Current With Fee	Maximum New Fee	Current (with inclusionary units)	Maximum New Fee
Site Size (acres) (a)	1.00	1.00	1.00	1.00
Land Cost and Prep/sq.ft.	\$ 110	\$ 110	\$ 110	\$ 110
FAR	3.0	3.0	3.0	3.0
Total Buildable Square Feet per FAR	130,680	130,680	130,680	130,680
Number of Floors	4	4	4	4
Developable Footprint/1st Floor (b)	39,200	39,200	39,200	39,200
Gross Sq. Ft. Residential (c)	91,480	91,480	91,480	91,480
Residential Units				
Less: Common Area Residential	20% (18,296)	(18,296)	(18,296)	(18,296)
Sq. Feet for Residential Units	73,184	73,184	73,184	73,184
Size per Unit (all 2-bedroom) (d)	900	900	900	900
Number of Units (total)	81	81	81	81
Number of Market Rate Units	81	81	65	81
Number of Affordable Units	20% -	-	16	-
Vacancy Rate (for rental)	5.0%	5.0%		
Pricing				
Market Rate Rent/Month (e)	\$ 3,400	\$ 3,400		
Market Rate Condo Sale Price (f)			\$ 700,800	\$ 700,800
Affordable Condo Sale Price (g)			\$ 198,700	\$ 198,700
Parking For Residential Units				
Parking Ratio (per unit)	1.00	1.00	1.00	1.00
Number of Spaces - Res	81	81	81	81
Sq. Ft. Per Space	350	350	350	350
Total For Res Parking	28,350	28,350	28,350	28,350
Retail Space				
Sq. Ft.	6,000	6,000	6,000	6,000
Rent/sq.ft./month (NNN)	\$ 2.25	\$ 2.25	\$ 2.25	\$ 2.25
Vacancy Rate	10.0%	10.0%	10.0%	10.0%
Parking for Retail Space				
Parking Ratio (per 1,000 sq. ft.)	2.0	2.0	2.0	2.0
Number of Spaces - Retail	12	12	12	12
Sq. Ft. Per Space	350	350	350	350
Total for Retail Parking	4,200	4,200	4,200	4,200
Construction Costs				
Hard Costs / Sq. Ft. Residential	\$ 215	\$ 215	\$ 250	\$ 250
Hard Costs /Sq. Ft. Retail	\$ 150	\$ 150	\$ 150	\$ 150
Parking Costs /Space	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000
Soft Costs (as % of hard)	20.0%	20.0%	20.0%	20.0%
Impact Fees/Res Unit	\$ 3,536	\$ 3,536	\$ 3,536	\$ 3,536
Impact Fees/Retail Sq. Ft. (h)	\$ 5.75	\$ 5.75	\$ 5.75	\$ 5.75
Financing Costs				
Loan-to-Cost Ratio	70.0%	70.0%	70.0%	70.0%
Interest Rate	6.5%	6.5%	6.5%	6.5%
Fees/Points/Loan Costs	2.0%	2.0%	2.0%	2.0%
Loan Period (months)	18	18	18	18
Avg. Outstanding Balance	60.0%	60.0%	60.0%	60.0%
Operating Costs for Rental (% of Rev)				
Cap Rate - Rental Residential	4.5%	4.5%		
Affordable Housing Impact Fee	\$ 34,000	\$ 37,000	\$ -	\$ 75,000
Cap Rate - Retail	6.5%	6.5%	6.5%	6.5%

Notes:

(a) Analysis is based on a one-acre site with at 150-foot street frontage and 290.4-foot lot depth

(b) Calculated as though the parcel abuts a residential district and therefore requires a rear yard setback equal to 10% of the lot depth, which reduces the size of the one-acre lot by 4,36 square feet to allow for the rear setback. The developable footprint is equal to the size of the first floor of the project, which will consist of parking and retail space

(c) Calculated by subtracting the ground floor from the total buildable square feet per the FAR, resulting in three 30,493-square foot stories of residential units above the ground floor parking and retail space. This results in 8,707 square feet of open space at the second-floor level (39,200 square feet at the ground floor less 30,493 square feet on floors 2 through 4), providing 10 square feet of open space per unit. The C-W zoning district and many other zoning districts in Berkeley that allow for multifamily housing require 40 square feet of open space per unit

(d) Based on the average size of a new two-bedroom unit in Berkeley, as shown in Appendix A, rounded to the nearest 100 square feet. This assumes that new condominiums will be typical be the same size as new rental units in Berkeley

(e) Based on the average rental rate for new 2-bedroom units in Berkeley, as shown in Appendix A, rounded to the nearest \$100

(f) Based on the average sale price among all full and verified sales of two-bedroom condominiums in Berkeley between July 1, 2013 and July 31, 2014. Data for resales are used because no data on recent purchases of new condominiums in Berkeley are available. The sale price for new condominiums is estimated to be ten percent higher than the median resale price. Figure differs from figure shown in Table 7 because the feasibility analysis considers two-bedroom units only rather than all units recently sold.

(g) Per City of Berkeley Inclusionary Housing Program requirements. Sale amount could potentially be increased if adjusted to new mortgage assumptions and AMI levels.

(h) Childcare and affordable housing fees are assessed on retail space measuring 7,500 square feet of more.

Pro Forma Analysis	Rental		Condo	
	Alt A1	Alt A2	Alt B1	Alt B2
	Current With Fee	Maximum New Fee	Current (with inclusionary units)	Maximum New Fee
Land Cost	\$ 4,791,600	\$ 4,791,600	\$ 4,791,600	\$ 4,791,600
Residential				
Hard Costs for Units	\$ 19,668,200	\$ 19,668,200	\$ 22,870,000	\$ 22,870,000
Parking for Units	\$ 2,835,000	\$ 2,835,000	\$ 2,835,000	\$ 2,835,000
Soft Costs	\$ 4,500,640	\$ 4,500,640	\$ 5,141,000	\$ 5,141,000
Current Fees (exc. Affordable)	\$ 286,416	\$ 286,416	\$ 286,416	\$ 286,416
Affordable In-Lieu	\$ 2,754,000	\$ 2,997,000	\$ -	\$ 6,075,000
Subtotal	\$ 30,044,256	\$ 30,287,256	\$ 31,132,416	\$ 37,207,416
Retail				
Hard Costs	\$ 900,000	\$ 900,000	\$ 900,000	\$ 900,000
Parking for Retail	\$ 420,000	\$ 420,000	\$ 420,000	\$ 420,000
Soft Costs	\$ 264,000	\$ 264,000	\$ 264,000	\$ 264,000
Current Fees	\$ -	\$ -	\$ -	\$ -
Subtotal	\$ 1,584,000	\$ 1,584,000	\$ 1,584,000	\$ 1,584,000
Total Costs Before Financing	\$ 36,419,856	\$ 36,662,856	\$ 37,508,016	\$ 43,583,016
Financing Costs				
Interest	\$ 1,491,393	\$ 1,501,344	\$ 1,535,953	\$ 1,784,725
Fees/Points	\$ 509,878	\$ 513,280	\$ 525,112	\$ 610,162
Subtotal	\$ 2,001,271	\$ 2,014,624	\$ 2,061,065	\$ 2,394,887
Total Project Costs	\$ 38,421,127	\$ 38,677,480	\$ 39,569,081	\$ 45,977,903
VALUE ANALYSIS				
Rental Residential				
Gross Rental Revenue	\$ 3,304,800	\$ 3,304,800	\$ -	\$ -
Less: Vacancy	\$ (165,240)	\$ (165,240)	\$ -	\$ -
Less: Operating Costs	\$ (991,440)	\$ (991,440)	\$ -	\$ -
NOI	\$ 2,148,120	\$ 2,148,120	\$ -	\$ -
Retail				
Gross Rental Revenue	\$ 162,000	\$ 162,000	\$ 162,000	\$ 162,000
Less: Vacancy	\$ (16,200)	\$ (16,200)	\$ (16,200)	\$ (16,200)
NOI	\$ 145,800	\$ 145,800	\$ 145,800	\$ 145,800
Capitalized Value of Income				
Rental Units	\$ 47,736,000	\$ 47,736,000	\$ -	\$ -
Retail	\$ 2,243,077	\$ 2,243,077	\$ 2,243,077	\$ 2,243,077
Total Capitalized Value	\$ 49,979,077	\$ 49,979,077	\$ 2,243,077	\$ 2,243,077
Condominiums				
Gross Sales Revenue	\$ -	\$ -	\$ 48,731,200	\$ 56,764,800
Less: Marketing Costs (5%)	\$ -	\$ -	\$ (2,436,560)	\$ (2,838,240)
Net Sales Revenue	\$ -	\$ -	\$ 46,294,640	\$ 53,926,560
Total Project Value	49,979,077	49,979,077	48,537,717	56,169,637
Less: Development Costs	\$ (38,421,127)	\$ (38,677,480)	\$ (39,569,081)	\$ (45,977,903)
Profit	\$ 11,557,950	\$ 11,301,597	\$ 8,968,635	\$ 10,191,734
Profit as % Return on Cost	30.1%	29.2%	22.7%	22.2%
NOI as % Return on Cost	6.0%	5.9%	NA	NA